

Operation Guide 5130 (OC)

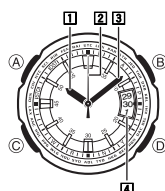
CASIO®

Congratulations upon your selection of this CASIO watch.

This watch does not have a city code that corresponds to the UTC offset of -3.5 hours. Because of this, the radio-controlled atomic timekeeping function will not display the correct time for Newfoundland, Canada.

Note that CASIO COMPUTER CO., LTD. assumes no responsibility for any damage or loss suffered by you or any third party arising through the use of this product or its malfunction.

About This Manual



Button operations are indicated using the letters (A) through (D) shown in the illustration.

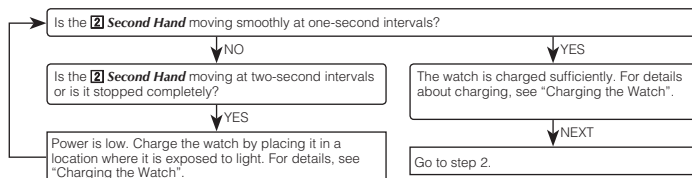
Hand Functions

- 1 Hour Hand
- 2 Second Hand
- 3 Minute Hand
- 4 Day

This User's Guide uses numbers shown above to identify watch hands and indicators.

Things to check before using the watch

- Hold down (C) at least two seconds to enter regular timekeeping, and then observe the movement of the 2 Second Hand.



- Check the Home City and the daylight saving time (DST) setting.

Use the procedure under "To configure Home City settings" to configure your Home City and daylight saving time settings.

Important!

Proper time calibration signal reception and World Time settings depend on correct Home City, Home Time, and Home Date settings. Make sure you configure these settings correctly.

- Set the current time.

- To set the time using a time calibration signal
See "To get ready for a receive operation".
- To set the time manually
See "Configuring Current Time and Date Settings Manually".

The watch is now ready for use.

- For details about the watch's radio controlled timekeeping feature, see "Radio Controlled Atomic Timekeeping".

Charging the Watch

The face of the watch is a solar cell that generates power from light. The generated power charges a built-in rechargeable battery, which powers watch operations. The watch charges whenever it is exposed to light.

Charging Guide



Whenever you are not wearing the watch, leave it in a location where it is exposed to light.

- Best charging performance is achieved by exposing the watch to light that is as strong as possible.



When wearing the watch, make sure that its face is not blocked from light by the sleeve of your clothing.

- The watch may enter a sleep state if its face is blocked by your sleeve even only partially.

Warning!

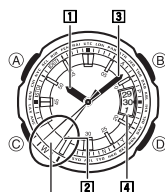
Leaving the watch in bright light for charging can cause it to become quite hot. Take care when handling the watch to avoid burn injury. The watch can become particularly hot when exposed to the following conditions for long periods.

- On the dashboard of a car parked in direct sunlight
- Too close to an incandescent lamp
- Under direct sunlight

Important!

- Keep the watch in an area normally exposed to bright light when storing it for long periods. This helps to ensure that power does not run down.
- Storing the watch for long periods in an area where there is no light or wearing it in such a way that it is blocked from exposure to light can cause power to run down. Make sure that the watch is exposed to bright light whenever possible.

Power Levels



Moves at two-second intervals.

You can get an idea of the watch's power level by observing the movement of the 2 Second Hand.

- If the 2 Second Hand is moving normally at one-second intervals, power is at Level 1.
- If the 2 Second Hand is moving at two-second intervals, power is at Level 2, which is quite low. Expose the watch to light as soon as possible so it can charge.

Level	Hand Movement	Function Status
1	Normal	All functions enabled
2	2 Second Hand moves at two-second intervals. 4 Day changes to 1 (home position).	Time calibration signal reception disabled
3	2 Second Hand stopped. 1 Hour Hand and 3 Minute Hand stopped at 12 o'clock.	All functions disabled

- When power drops to Level 3, all functions will be disabled but the watch will continue to keep time internally for about one week. If you recharge the battery sufficiently during this period, the analog hands will move automatically to the correct setting and regular timekeeping will resume. After one week, all settings (including timekeeping) will be cleared. Recharging the battery will reset all settings to their initial factory defaults.

Charging Times

Exposure Level (Brightness)	Daily Operation ^{*1}	Level Change ^{*2}		
		Level 3	Level 2	Level 1
Outdoor sunlight (50,000 lux)	8 minutes		2 hours	25 hours
Window sunlight (10,000 lux)	30 minutes		6 hours	92 hours
Window sunlight on cloudy day (5,000 lux)	48 minutes		9 hours	---
Indoor fluorescent lighting (500 lux)	8 hours		101 hours	---

^{*1} Approximate exposure each day to generate power for normal daily operation

^{*2} Approximate exposure to take power up one level

The above times are for reference only. Actual times depend on lighting conditions.

- For details about the operating time and daily operating conditions, see the "Power Supply" section of the Specifications.

Power Saving

Power Saving enters a sleep state automatically whenever the watch is left for a certain period in an area where it is dark. The table below shows how watch functions are affected by Power Saving.

- There actually are two sleep state levels: "second hand sleep" and "function sleep".

Elapsed Time in Dark	Operation
60 to 70 minutes (second hand sleep)	2 Second Hand only stopped at 12 o'clock, all other functions enabled
6 or 7 days (function sleep)	<ul style="list-style-type: none"> All functions, including analog timekeeping, disabled Internal timekeeping maintained

- The watch will not enter a sleep state between 6:00 AM and 9:59 PM. If the watch is already in a sleep state when 6:00 AM arrives, however, it will remain in the sleep state.

To recover from the sleep state

Move the watch to a well-lit area or press any button.

Radio Controlled Atomic Timekeeping

This watch receives a time calibration signal and updates its time setting accordingly. However, when using the watch outside of areas covered by time calibration signals, you will have to adjust the settings manually as required. See "Configuring Current Time and Date Settings Manually" for more information.

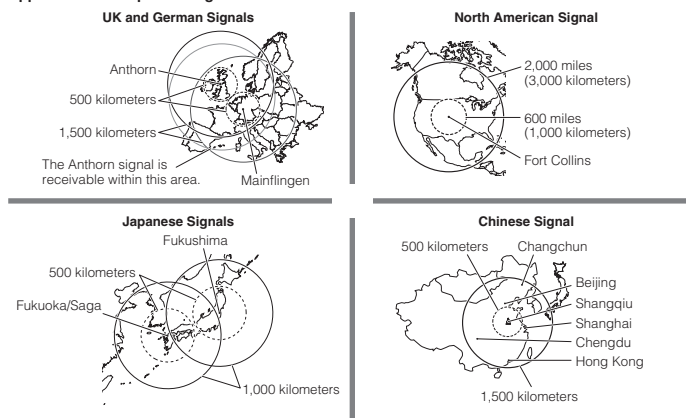
This section explains how the watch updates its time settings when the city code selected as the Home City is in Japan, North America, Europe, or China, and is one that supports time calibration signal reception.

If your Home City Code setting is this:	The watch can receive the signal from the transmitter located here:
LONDON (LON), PARIS (PAR), ATHENS (ATH)	Anthorn (England), Mainflingen (Germany)
HONG KONG (HKG)	Shangqiu City (China)
TOKYO (TYO)	Fukushima (Japan), Fukuoka/Saga (Japan)
HONOLULU (HNL), ANCHORAGE (ANC), LOS ANGELES (LAX), DENVER (DEN), CHICAGO (CHI), NEW YORK (NYC)	Fort Collins, Colorado (United States)

Important!

- The areas covered by HONOLULU (HNL) and ANCHORAGE (ANC) are quite far from the calibration signal transmitters, so certain conditions may cause reception problems.
- When HONOLULU (HNL) or HONG KONG (HKG) is selected as the Home City, only the time and date are adjusted according to the time calibration signal. You need to switch manually between standard time and daylight saving time (DST) if required. See "To configure Home City settings" for information about how to do this.

Approximate Reception Ranges



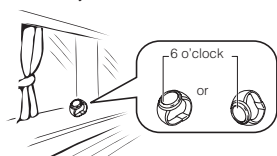
- Even when the watch is within range of a transmitter, signal reception may be impossible due to the effects of geographic contours, structures, weather, the time of year, the time of day, radio interference, etc. The signal becomes weaker at distances of approximately 500 kilometers, which means that the influence of the above conditions becomes even greater.
- Signal reception may not be possible at the distances noted below during certain times of the year or day. Radio interference may also cause problems with reception.
 - Mainflingen (Germany) or Anthorn (England) transmitters: 500 kilometers (310 miles)
 - Fort Collins (United States) transmitter: 600 miles (1,000 kilometers)
 - Fukushima or Fukuoka/Saga (Japan) transmitters: 500 kilometers (310 miles)
 - Shangqiu (China) transmitter: 500 kilometers (310 miles)
- As of January 2010, China does not use Daylight Saving Time (DST). If China does go to the Daylight Saving Time system in the future, some functions of this watch may no longer operate correctly.
- Using this watch in a country covered by a time calibration signal that is different from the countries it supports may result in incorrect time indication due to local application of summer time, etc.

Operation Guide 5130 (OC)

CASIO®

To get ready for a receive operation

1. Check to make sure the watch is in the regular timekeeping mode. If it isn't, hold down **C** at least two seconds to enter the regular timekeeping mode.
2. The antenna of this watch is located on its 6 o'clock side. Position the watch with 6 o'clock facing towards a window as shown in the nearby illustration. Make sure there are no metal objects nearby.



- Signal reception normally is better at night.
- The receive operation takes from two to seven minutes, but in some cases it can take as long as 14 minutes. Take care that you do not perform any button operation or move the watch during this time.
- Signal reception may be difficult or even impossible under the conditions described below.



Inside or among buildings



Inside a vehicle



Near household appliances, office equipment, or a mobile phone



Near a construction site, airport, or other sources of electrical noise



Near high-tension power lines



Among or behind mountains

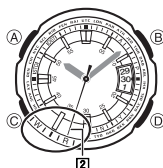
3. What you should do next depends on whether you are using Auto Receive or Manual Receive.
 - Auto Receive: Leave the watch over night in the location you selected in step 2. See "Auto Receive" for details.
 - Manual Receive: Perform the operation under "To perform manual receive".

Auto Receive

- With Auto Receive, the watch performs the receive operation each day automatically up to six times (up to five times for the Chinese calibration signal) between the hours of midnight and 5 a.m. (according to the Home City time). When any receive operation is successful, none of the other receive operations for that day are performed.
- The receive operation is not performed if a calibration time is reached while you are configuring settings.

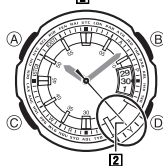
To perform manual receive

1. In the regular timekeeping mode, keep **A** depressed (for about two seconds) as the **[2] Second Hand** goes through the following sequence.
 - Moves to **YES** (or **Y** for some models) or **NO** (**N**) to indicate the last signal reception result, then to **READY** (**R**).
2. The **[2] Second Hand** indicates the operations the watch is currently performing.



When the [2] Second Hand is pointed here:	It means this:
READY (R)	Watch is setting up for reception.
WORK (W)	Reception is in progress.
YES (Y)	Reception was completed successfully.
NO (N)	Reception failed for some reason.

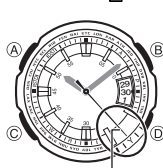
- If signal reception is unstable, the **[2] Second Hand** may move between **WORK (W)** and **READY (R)**.



3. The receive operation is complete when the **[2] Second Hand** moves to **YES (Y)** or **NO (N)** for about five seconds, and then resumes regular timekeeping.
 - You can return to regular timekeeping manually by pressing **A** while the **[2] Second Hand** is pointing to **YES (Y)** or **NO (N)**.
 - When the receive operation is successful, the watch adjusts the time setting accordingly. It does not adjust the setting if the operation failed.

Note

- To interrupt a receive operation and return to the regular timekeeping, press any button.



To check the result of the latest receive operation

- In the regular timekeeping mode, press **A**.
- The **[2] Second Hand** will move to **YES (Y)** for five seconds if the latest receive operation was successful, or **NO (N)** if it was not. After that, regular timekeeping will resume.
- You can return to regular timekeeping manually by pressing **A** while the **[2] Second Hand** is pointing to **YES (Y)** or **NO (N)**.

Note

- The **[2] Second Hand** will indicate **NO (N)** if you have adjusted the time or date setting manually since the latest receive operation.

Radio-controlled Atomic Timekeeping Precautions

- Strong electrostatic charge can result in the wrong time setting.
- Even if a receive operation is successful, certain conditions can cause the time setting to be off by up to one second.
- The watch is designed to update the date automatically for the period January 1, 2000 to December 31, 2099. Updating of the date by signal reception will no longer be performed starting from January 1, 2100.
- If you are in an area where signal reception is not possible, the watch keeps time with the precision noted in "Specifications".
- The receive operation is disabled under any of the following conditions.
 - While power is at Level 2 or lower
 - When the watch is in the function sleep state ("Power Saving")

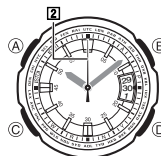
Mode Reference Guide

Your watch has two timekeeping modes, and a number of setting modes. The timekeeping mode you should select depends on what you want to do.

To do this:	Enter this mode:
<ul style="list-style-type: none">• View the current time in your Home City• View the current date in the Home City• Perform a time calibration receive operation• Configure time and date settings manually	Regular timekeeping mode
<ul style="list-style-type: none">• Configure Home City and daylight saving time (DST) settings• Select one of 29 cities (time zones) around the world and view the current time there• Select daylight saving/summer time (DST) or standard time for a time zone	World Time mode

Selecting a Mode

With this watch, everything starts from the regular timekeeping mode.



To determine the watch's current mode

Check the position of the **[2] Second Hand** as shown under "To select a mode".

To return to the regular timekeeping mode from another mode

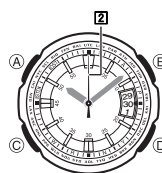
Hold down **C** at least two seconds until the **[2] Second Hand** stops and then starts moving again.

To select a mode

Starting from the regular timekeeping mode, press **C** to toggle between the regular timekeeping mode and the World Time mode. You can tell what mode is currently selected by checking the **[2] Second Hand**, as described below.

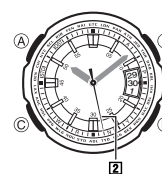
Regular timekeeping mode

The **[2] Second hand** indicates seconds.

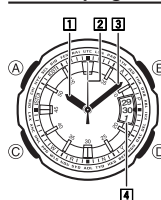


World Time mode

The **[2] Second hand** indicates the World Time city code.



Timekeeping



Hand Functions

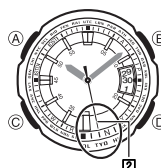
- [1]** Hour Hand
- [2]** Second Hand
- [3]** Minute Hand
- [4]** Day

- To return to regular timekeeping from any other mode or function, hold down **C** at least two seconds.

Configuring Home City Settings

There are two Home City settings: actually selecting the Home City and selecting either standard time or daylight saving time (DST).

To configure Home City settings



Note

- This watch does not have a city code that corresponds to Newfoundland.

1. Press **C** to enter the World Time Mode.
2. Use **D** to move the **[2] Second Hand** clockwise until it is indicating the city code you want to select as the **World Time City**.
 - Each press of **D** moves the **[2] Second Hand** to the next city code.
 - About 1.5 seconds after you press **D**, the time setting will change to the current time in the selected city. Note that it may take some time (about one minute) before the watch's hands stop moving.
 - All operations except for the following are disabled while the watch's hands are moving to the current time for a newly selected city code.
 - D**: City selection
 - C**: Entering the Regular Timekeeping Mode
 - For details about city codes, see the "City Code Table".

3. Hold down **A** for about two seconds to toggle between daylight saving time and standard time.

- Changing the setting will cause the **[2] Second Hand** to move to **STD** or **DST**.

- The **[2] Second Hand** will return to the city code you selected in step 2 after about five seconds, or if you press **A** again.
 - If you want to configure other settings, wait until the **[2] Second Hand** moves back to the city code before proceeding.
 - You can select **STD** or **DST** for each World Time City code, except **UTC**.
4. After the settings are the way you want, hold down **B** for about three seconds until the watch returns to the Regular Timekeeping Mode.
 - As you hold down **B**, the **[2] Second Hand** will move to either **AM (A)** or **PM (P)**, and then the watch will enter the Regular Timekeeping Mode.

Note

- After you specify a city code, the watch will use UTC* offsets to calculate the World Time based on the current time in your Home City.

* Coordinated Universal Time, the world-wide scientific standard of timekeeping. The reference point for UTC is Greenwich, England.

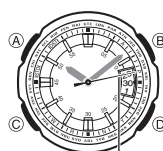
- Selecting some city codes makes it possible for the watch to receive the time calibration signal for the corresponding area automatically. See "Radio Controlled Atomic Timekeeping" for details.

To check the current Home City STD/DST setting

- In the Regular Timekeeping Mode, press **(D)**.
 - This will cause the **[2] Second Hand** to move to the current Home City setting.
- After about two seconds (or if you press **(D)**), the **[2] Second Hand** will move to either **STD** (standard time) or **DST** (daylight saving time).
- After about two seconds (or if you press **(D)**), the watch will return to the Regular Timekeeping Mode.

Configuring Current Time and Date Settings Manually

You can configure current time and date settings manually when the watch is unable to receive a time calibration signal.



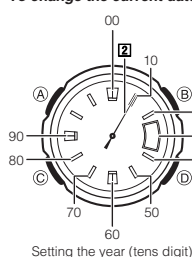
To change the current time setting manually

- In the regular timekeeping mode, keep **(A)** depressed (for about five seconds) as the **[2] Second Hand** goes through the following sequence.
 - Moves to **YES** (or **Y** for some models) or **NO** (**N**) to indicate the last signal reception result, then to **READY** (**R**), and then **AM** (**A**) or **PM** (**P**).
- Use **(C)** to cycle through available settings in the sequence shown below.
 - See "To configure Home City settings" for details about selecting a Home City.
- Use **(D) (+)** and **(B) (-)** to change the time (hour and minute) setting.
 - Each press of either button will move the hands (**[1] Hour Hand** and **[3] Minute Hand**) one minute.
 - Holding down **(D)** or **(B)** will start high-speed **[1] Hour Hand** and **[3] Minute Hand** movement in the applicable direction. To stop high-speed hand movement, press any button.



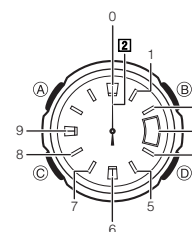
- After the time setting is the way you want, press **(A)** to return to regular timekeeping.
 - This will cause the **[2] Second Hand** to move automatically to 12 o'clock and resume movement from there.

To change the current date setting manually



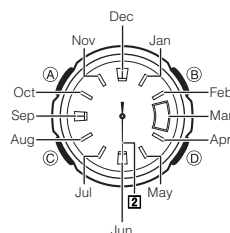
- In the regular timekeeping mode, keep **(A)** depressed (for about five seconds) as the **[2] Second Hand** goes through the following sequence.
 - Moves to **YES** (or **Y** for some models) or **NO** (**N**) to indicate the last signal reception result, then to **READY** (**R**), and then **AM** (**A**) or **PM** (**P**).
- Press **(C)**.
 - The **[2] Second Hand** will move to the tens digit of the current year setting. This is the year setting mode.
 - The year can be set in the range of 2000 to 2099.
- Press **(D)** to move the **[2] Second Hand** clockwise until it is pointing at the year tens digit you want to select.

Setting the year (tens digit)



Setting the year (ones digit)

- After you select the year tens digit, press **(C)**.
 - The **[2] Second Hand** will move to the ones digit of the current year.
- Press **(D)** to move the **[2] Second Hand** clockwise until it is pointing at the year ones digit you want to select.
- After you select the year ones digit, press **(C)**.
 - The **[2] Second Hand** will move to the currently selected month. This is the month setting mode.

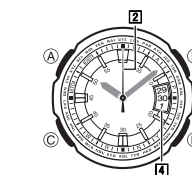


Setting the month

- Use **(D)** to move the **[2] Second Hand** to the month setting you want.
- After the month setting is the way you want, press **(C)**.
 - This will enter the day setting mode. The day indicator will move slightly when the day setting mode is entered. This is normal.
 - The **[2] Second Hand** will remain at the month setting you selected in the previous step.
- Use **(D) (+)** and **(B) (-)** to change the **[4] Day** setting.
 - If you want to change the time setting at this time, press **(C)** and then perform the procedure starting from step 3 under "To change the current time setting manually".
- After the settings are the way you want, press **(A)** to return to regular timekeeping.
 - This will cause the **[2] Second Hand** to move automatically to 12 o'clock and resume movement from there.

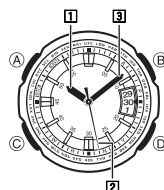
Note

- The watch's built-in full automatic calendar makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except after you have the watch's rechargeable battery replaced or after power drops to Level 3.



Checking the Current Time in a Different Time Zone

You can use World Time to view the current time in one of 29 time zones around the globe. The currently selected city is called the "World Time City".



Hand Functions

- [1] Hour Hand:** Indicates the hour of the current time in the World Time City.
- [2] Second Hand:** Indicates the currently selected World Time City.
- [3] Minute Hand:**
 - When you enter the World Time Mode, the **[2] Second Hand** initially moves to the currently selected Home City.

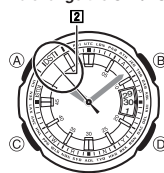
To search for a city

- In the World Time Mode, press **(D)** to move the **[2] Second Hand** (which is pointing at the currently selected city code) clockwise.
 - About one second or so after you release **(D)**, the hands of the watch will move to the current time in the zone of the city code indicated by the **[2] Second Hand**.
 - Note that it can take as long as one minute for the hands to move to the applicable time.
 - All operations except for the following are disabled while the watch's hands are moving to the current time for a newly selected city code.
 - (D)**: City selection
 - (C)**: Entering the Regular Timekeeping Mode

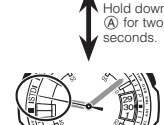
To check whether a time zone time is AM or PM

- In the World Time Mode, use **(D)** to select the city whose setting you want to check.
- Press **(B)** and the **[2] Second Hand** will move to either **AM** (**A**) or **PM** (**P**).
 - The **[2] Second Hand** will return to the city code you selected in step 1 after about five seconds or if you press **(B)** again.

To change the STD/DST setting of a particular city code



- In the World Time Mode, use **(D)** to select the city whose setting you want to change.
- Hold down **(A)** for about two seconds to toggle between daylight saving time and standard time.
 - Changing the setting will cause the **[2] Second Hand** to move to **STD** or **DST**.
 - The **[2] Second Hand** will return to the city code you selected in step 1 after about five seconds or if you press **(A)** again.
 - If you want to configure other settings, wait until the **[2] Second Hand** moves back to the city code before proceeding.
 - You can select **STD** or **DST** for each World Time city code, except **UTC**.



To check the STD/DST setting for a World Time Mode city

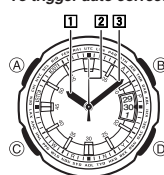
- In the World Time Mode, use **(D)** to select the city whose setting you want to check.
- Press **(A)** and the **[2] Second Hand** will move to either **STD** or **DST**.
 - The **[2] Second Hand** will return to the city code you selected in step 1 after about five seconds or if you press **(A)** again.

Auto Correction of Hand Home Positions

Strong magnetism or impact can cause the hands and/or day setting to be off, even if the watch is able to perform the signal receive operation. Auto correction of hand home positions correct the hand position automatically.

- Auto correction is performed in the regular timekeeping mode only.
- Auto correction corrects the positions of the **[1] Hour Hand**, **[3] Minute Hand**, and **[2] Second Hand**. For the day, you must perform the manual adjustment procedure under "Adjusting Home Positions Manually".
- Each hour, the watch performs automatic correction of the hand positions from -55 minutes to +5 minutes.
- You also can trigger auto correction of hand home positions manually, if you want. See "To trigger auto correction of hand home positions" for more information.
- Auto correction of hand home positions can take up to three and a half minutes to complete.
- If hand positions are off by one hour or more, correct them using the procedure under "To trigger auto correction of hand home positions" or "Adjusting Home Positions Manually".

To trigger auto correction of hand home positions



- Perform the following procedure when the time setting is off.
- In the regular timekeeping mode, hold down **(B)** for about six seconds until the **[2] Second Hand** completes one full revolution.
 - Though the **[2] Second Hand** will stop momentarily about three seconds after you hold down **(B)**, do not release the button yet. Wait until the **[2] Second Hand** completes a full revolution before you release **(B)**.
 - To interrupt an ongoing correction operation and return to regular timekeeping, press **(B)** again.
 - If you release **(B)** when the **[2] Second Hand** stops the first time (after about three seconds) in the above operation, the watch will enter the home position adjustment mode, which is described under "Adjusting Home Positions Manually". If this happens, press **(A)** to return to regular timekeeping and then perform the above operation again.
 - Manually triggered auto correction of hand home positions performs the following two steps.

- The hands will move automatically in order to determine the home positions of the watch.
- After the hand home positions are determined, the watch will return to normal timekeeping automatically. This completes the correction operation.

Adjusting Home Positions Manually

Strong magnetism or impact can cause the hands and/or day of the watch to be off, even if the watch is able to perform the signal receive operation. If this happens, perform the applicable home position adjustment procedures in this section.

- Hand home position adjustment is not required if the time and day settings are correct.
- You also can use auto correction of the hand home positions to correct the home positions of the **[1] Hour Hand**, **[3] Minute Hand**, and **[2] Second Hand**.

Note

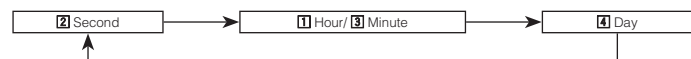
Any time after you enter the home position adjustment mode in step 1 of the following procedure, you can return to regular timekeeping by pressing **(A)**. The watch also will return to regular timekeeping automatically if you do not perform any operation for about two or three minutes in the home position adjustment mode. In either case, any adjustments you made before the watch returned to regular timekeeping will be applied.

Operation Guide 5130 (OC)

CASIO®

To adjust home positions manually

- Hold down **(C)** at least two seconds until the **[2] Second Hand** stops and then starts moving again.
- Hold down **(B)** for about three seconds.
 - The **[2] Second Hand** will start to move when you first press **(B)**. Keep **(B)** depressed until the **[2] Second Hand** stops.
 - The watch is now in the home position adjustment mode.
 - The watch will exit the home position adjustment mode automatically if you do not perform any operation for about two or three minutes.
 - First is **[2] Second Hand** home position adjustment.
 - If the **[2] Second Hand** moves to 12 o'clock, it is in the correct home position. If it doesn't, use **(D)** to move it to 12 o'clock.
 - Each press of **(C)** in the home position adjustment mode will cycle through the adjustment settings as shown below.



- When adjusting a hand or the date home position, it is recommended that after you move to a proper home position, you press **(B)** to move the setting back one step. Next, press **(D)** again to return it to the home position. This helps to ensure better home position adjustment accuracy.

- After confirming that the **[2] Second Hand** is at the proper home position, press **(C)**. This will switch to **[1] Hour Hand** and **[3] Minute Hand** home position adjustment.
 - The **[1] Hour Hand** and **[3] Minute Hand** are at their proper home positions if they both move to 12 o'clock. If the hands are not positioned correctly, use **(D) (+)** and **(B) (-)** to move them to their proper home positions.
- After confirming that the **[1] Hour Hand** and **[3] Minute Hand** are in their correct home positions, press **(C)**. This will advance to **[4] Day** home position adjustment.
 - The **[4] Day** is in the correct home position if it shows **1**. If it doesn't, use **(D) (+)** and **(B) (-)** to change the day to **1**.
- Press **(A)** to return to regular timekeeping.
 - The **[4] Day** moves to the current day, and then the **[1] Hour Hand** and the **[3] Minute Hand** will move to the current time. Wait until everything stops moving.

Troubleshooting

Hand Movement and Position

- The [2] Second Hand is moving at two second intervals.**

- All the watch's hands are stopped at 12 o'clock and none of the buttons work.**

Power may be low. Expose the watch to light until the **[2] Second Hand** starts moving normally, at one-second intervals.

- The hands of the watch suddenly start moving at high speed, even when I do not perform any operation.**

This could be due to any one of the following causes. In all cases, the hand movement does not indicate malfunction, and should stop shortly.

- The watch is recovering from a sleep state.
- The time setting is being adjusted following a successful auto time calibration signal receive operation.

- The current time setting is off by hours.**

Your Home City setting may be wrong. Check your Home City setting and correct it, if necessary.

- The current time setting is off by one hour.**

If you are using the watch in an area where time calibration signal reception is possible, see "To configure Home City settings".

If you are using the watch in an area where time calibration signal reception is not possible, you may need to change your Home City's **STD** (standard time)/**DST** (daylight saving/summer time) setting manually. Use the procedure under "To configure Home City settings" to change the **STD/DST** setting.

- The hands and/or day indications are off.**

This could indicate that the watch has been exposed to magnetism or strong impact, which has caused problems with proper hand and day alignment. Adjust the watch's hand and day home position alignment.

World Time

- World Time is one hour off from the actual time in the selected time zone.**

The **STD** (standard time)/**DST** (daylight saving/summer time) setting of the selected World Time City may be wrong. Select the correct **STD** (standard time)/**DST** (daylight saving/summer time) setting.

- World Time is not indicated correctly.**

Your Home City settings may be wrong. Check your Home City settings and correct them, if necessary.

Charging

- The watch does not resume operation after I expose it to light.**

This can happen after the power level drops to Level 3. Continue exposing the watch to light until the **[2] Second Hand** starts moving normally (at one-second intervals).

- The [2] Second Hand starts to move at one-second intervals, but then suddenly returns to moving at two-second intervals.**

The watch probably is not sufficiently charged yet. Continue keeping it exposed to light.

Time Calibration Signal

The information in this section applies only when **LONDON (LON)**, **PARIS (PAR)**, **ATHENS (ATH)**, **HONOLULU (HNL)**, **ANCHORAGE (ANC)**, **LOS ANGELES (LAX)**, **DENVER (DEN)**, **CHICAGO (CHI)**, **NEW YORK (NYC)**, **HONG KONG (HKG)**, or **TOKYO (TYO)** is selected as the Home City. You need to adjust the current time manually when any other city is selected as the Home City.

- The [2] Second Hand indicates NO (N) when I check the result of the latest receive operation.**

Possible Cause	Remedy
<ul style="list-style-type: none">You are wearing or moving the watch, or performing a button operation during the signal receive operation.The watch is in an area with poor reception conditions.	Keep the watch in an area where reception conditions are good while the signal receive operation is being performed.
You are in an area where signal reception is not possible for some reason.	See "Approximate Reception Ranges".
The calibration signal is not being transmitted for some reason.	<ul style="list-style-type: none">Check the website of the organization that maintains the time calibration signal in your area for information about its down times.Try again later.

- The current time setting changes after I set it manually.**

You may have the watch configured for Auto Receive of the time calibration signal, which will cause the time to be adjusted automatically according to your currently selected Home City. If this results in the wrong time setting, check your Home City setting and correct it, if necessary.

- The current time setting is off by one hour.**

Possible Cause	Remedy
Signal reception on a day for switching between STD (standard time)/ DST (daylight saving/summer time) may have failed for some reason.	Perform the operation under "To get ready for a receive operation". The time setting will be adjusted automatically as soon as signal reception is successful. If you are unable to receive the time calibration signal, change the STD (standard time)/ DST (daylight saving/summer time) setting manually.

- Auto Receive is not performed or I cannot perform Manual Receive.**

Possible Cause	Remedy
Your Home City setting is wrong.	Check your Home City setting and correct it, if necessary.
There is not enough power for signal reception.	Expose the watch to light to charge it.

- Signal reception is being performed successfully, but the time and/or day is wrong.**

Possible Cause	Remedy
Your Home City setting is wrong.	Check your Home City setting and correct it, if necessary.
The watch may have been exposed to magnetism or strong impact, which has caused problems with proper hand and day alignment.	Adjust the watch's hand and day home positions.

Specifications

Accuracy at normal temperature: ± 15 seconds a month (with no signal calibration)

Timekeeping: Hour, minutes (hand moves every 10 seconds), seconds, day

Calendar system: Full Auto-calendar pre-programmed from the year 2000 to 2099

Other: Home City code (can be assigned one of 29 city codes and Coordinated Universal Time); Daylight Saving Time (summer time) / Standard Time

Time Calibration Signal Reception: Auto receive up to six times a day (5 times a day for the Chinese calibration signal; Remaining auto receives cancelled as soon as one is successful); Manual receive

Receiveable Time Calibration Signals:

Mainflingen, Germany (Call Sign: DCF77, Frequency: 77.5 kHz); Anthorn, England (Call Sign: MSF, Frequency: 60.0 kHz); Fukushima, Japan (Call Sign: JJY, Frequency: 40.0 kHz); Fukuoka/Saga, Japan (Call Sign: JJY, Frequency: 60.0 kHz); Fort Collins, Colorado, the United States (Call Sign: WWVB, Frequency: 60.0 kHz); Shangqiu City, Henan Province, China (Call Sign: BPC, Frequency: 68.5 kHz)

World Time: 29 cities (29 time zones) and Coordinated Universal Time

Other: Standard Time/Daylight Saving Time (summer time); Home City specification

Other: Power Saving; Auto Correction of Hand Home Positions

Power Supply: Solar cell and one rechargeable battery

Approximate battery operating time: 6 months (no exposure to light after a full charge; one signal reception of approximately 4 minutes per day)

City Code Table

City Code	City	UTC Offset/GMT Differential
PAGO PAGO (PPG)	Pago Pago	-11
HONOLULU (HNL)	Honolulu	-10
ANCHORAGE (ANC)	Anchorage	-9
LOS ANGELES (LAX)	Los Angeles	-8
DENVER (DEN)	Denver	-7
CHICAGO (CHI)	Chicago	-6
NEW YORK (NYC)	New York	-5
SANTIAGO (SCL)	Santiago	-4
RIO	Rio De Janeiro	-3
F. DE NORONHA (FEN)	Fernando de Noronha	-2
PRAIA (RAI)	Praia	-1
UTC		0
LONDON (LON)	London	
PARIS (PAR)	Paris	+1
ATHENS (ATH)	Athens	+2
JEDDAH (JED)	Jeddah	+3
TEHRAN (THR)	Tehran	+3.5
DUBAI (DXB)	Dubai	+4
KABUL (KBL)	Kabul	+4.5
KARACHI (KHI)	Karachi	+5
DELHI (DEL)	Delhi	+5.5
DHAKA (DAC)	Dhaka	+6
YANGON (RGN)	Yangon	+6.5
BANGKOK (BKK)	Bangkok	+7
HONG KONG (HKG)	Hong Kong	+8
TOKYO (TYO)	Tokyo	+9
ADELAIDE (ADL)	Adelaide	+9.5
SYDNEY (SYD)	Sydney	+10
NOUMEA (NOU)	Noumea	+11
WELLINGTON (WLG)	Wellington	+12

- Based on data as of December 2009.

- The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.